THOMAS GREEN

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SUMMARY

Robotics engineer with a First-Class MEng in Mechatronic Engineering and an MSc in Robotics (on track for Distinction). Co-developed and field-tested a patent-pending soft vine robot for fibre-optic installation, now in production and testing across Liberty Global's operating companies. Currently developing lap-simulation tooling and ML prediction models for the FIA Formula E World Championship, alongside MSc research into tactile perception for vision-language-action (VLA) models.

EXPERIENCE

Formula E Sep 2024 – Present

AI/Data Engineer (part-time from Oct 2025, alongside MSc) *London, UK*

- Built lap-simulation tooling that the track-design team uses to prototype prospective championship circuits, balancing driver safety and energy efficiency against entertainment value. Circuit reviews that previously took weeks of manual work now turn around in a day, even for entirely new tracks with no survey or on-site data.
- Brought race-outcome prediction in-house, building an XGBoost model on engineered features (battery advantage, historical priors, race progression and speed trend) that powers live insights broadcast globally on the world feed. The model calls the winner with 63% accuracy at 60% race distance, up from under 50% for the previous external version.
- Delivered the championship's headline fan-experience product with principal partner Google Cloud: an AI tool that analyses fans' driving on the sim-racing rigs in the Formula E Gaming Arena, used by 10,000+ fans and showcased by Google at conferences worldwide.
- Contributed to the company-wide AWS-to-GCP migration; built real-time data pipelines, rebuilt key visualisation dashboards and wrote internal AI/LLM tools.

Liberty Global Sep 2022 – Aug 2024

Graduate Engineer, Technology Rotational Programme (Innovation, Strategy, AI Automation) *Zurich, Switzerland*

- Co-led ideation and prototyping of a patent-pending soft vine robot that grows through congested underground ducting to install fibre-optic cable; built 3 prototypes in 9 months and demonstrated a single-run traversal of 200+ metres of live duct in field trials. The robot won Group CTO backing for productionisation and is now in production and testing across operating companies.
- Created a standardised, quantitative framework that scored the momentum of emerging technologies across scientific publications, theses, news outlets and science media, guiding Liberty Global Ventures' technology and start-up investments.
- Led automation initiatives across Liberty Global subsidiaries, replacing manual workflows with custom Python tooling and freeing capacity equivalent to around 8 full-time roles.

EDUCATION

MSc Robotics Sep 2025 – Sep 2026 (expected)

University of Bristol, UK *On track for Distinction (GPA 3.92/4.0)*

MEng (Master of Engineering), Mechatronic Engineering Sep 2018 – Aug 2022

University of Southampton, UK *First-Class Honours (GPA 3.9/4.0)*

SELECTED PROJECTS

- **Embedding Tactile Perception in Vision-Language-Action Models** (MSc): integrating optical-tactile sensing into pre-trained VLA models (SmolVLA/OpenVLA) through LoRA fine-tuning, targeting fold-direction selection by material for robotic cloth manipulation on an ABB YuMi.
- **Autonomous Pedal-Actuation Robot** (MEng): engineered robotic actuators that retrofit autonomous control onto conventional vehicles, from mechanical design through to closed-loop actuator control.

TECHNICAL SKILLS

Programming	Python, SQL, MATLAB, C/C++, R, JavaScript
Robotics	Soft Robotics, Robotic Manipulation, Closed-Loop Control, Kinematics, Sensor Integration, Embedded Systems, Machine Vision (OpenCV)
Machine Learning	PyTorch, scikit-learn, XGBoost, VLA Models (π0.5, SmolVLA, OpenVLA), OpenAI & Claude APIs
CAD & Hardware	SolidWorks, FEA, Rapid Prototyping (SLA/FDM, CNC Machining)
Cloud, Data & Dev	GCP (BigQuery, Vertex AI), AWS, PostgreSQL, Docker, Git, CI/CD, Linux, REST, FastAPI

ADDITIONAL

Availability Full-time from Nov 2026.